

An apparatus or means is specifically designed for carrying out the process when the apparatus or means is suitable for carrying out the process with the technical relationship being present between the claimed apparatus or means and the claimed process. The expression specifically designed does not imply that the apparatus or means could not be used for carrying out another process, nor does it imply that the process could not be carried out using an alternative apparatus or means. *Id.*

In the present matter, Applicants submit that method Claim 1 and apparatus Claim 6 share at least one special technical feature that defines it over the prior art, i.e., U.S. Patent No. 5,999,865 ('865 patent), referenced by the Examiner. In particular, both independent Claims 1 and 6 define that at least one sideward safe area is determined in addition to safe area in front of the vehicle. Furthermore, both independent Claims 1 and 6 define that the control system is configured to monitor at least one sideward safe area and to issue a collision warning message if even one of the memory points resides within the safe area. Claims 1 and 6 include the same special technical features that define a contribution over the '865 patent.

In the '865 patent, a mining vehicle is disclosed having a scanner for sending signals out in at least three different angles measured from the vehicle's forward direction, as mentioned in column 6, lines 48-50, Claims 5, 6, and 16, and as shown in Figs. 6-8. As such, according to the '865 patent, safety zones are determined only in the forward direction of the vehicle. There is no mention or teaching in this document to define any sideward safe areas of the vehicle.

The Examiner also points to PCT/ISA/210 for supporting the position that there is no special technical feature that defines a contribution over the prior art. In this document, Claims 6-10 were indicated not to include an inventive step. However, Applicants direct the Examiner's attention to PCT/IPEA/409, relevant portions of which are enclosed. In

particular, Applicants presented arguments concerning the prior art, and the Examiner changed his position and indicated that Claims 1-10 were patentable over the '865 patent.

Finally, during prosecution of the PCT application, there was no objection raised against unity of claims. Thus, the claims are already in the PCT phase considered to define the same invention, and should also be allowable in the national phase of the PCT. Accordingly, Applicants submit that the restriction requirement is inappropriate and should be withdrawn.

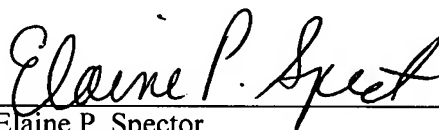
Should any questions arise in connection with this application, or should the Examiner believe a telephone conference would be helpful in resolving any remaining issues pertaining to this application, it is respectfully requested that the undersigned be contacted at the number indicated below.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0573. This paragraph is intended to be a CONSTRUCTIVE PETITION FOR EXTENSION OF TIME in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully Submitted,

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V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Statement

Novelty (N)

Claims 1-10

YES

Claims _____

NO

Inventive step (IS)

Claims 1-10

YES

Claims _____

NO

Industrial applicability (IA)

Claims 1-10

YES

Claims _____

NO

2. Citations and explanations (Rule 70.7)

Documents cited in the International Search Report:

D1: US 5999865 A

D2: US 6393362 B1

D3: US 6055042 A

D4: US 5572428 A

D1 discloses a mine vehicle comprising a scanner for guiding the vehicle in forward and reverse and also for detecting obstacles in front of the vehicle. See column 6, lines 19-29.

D2 discloses a mine vehicle comprising a safety zone 44 in front of the vehicle and also in a sideward direction of the vehicle. The shape and size of the safety zone is varied dynamically along the route. The vehicle receives, either directly or through a central station, the positions and safety zones of all other vehicles. A collision warning is issued when the safety zones of two vehicles overlap. See column 2, line 43-column 3, line 26; column 7, line 1-column 8, line 30.

D3 and D4 disclose obstacle detection systems comprising scanning an area in front of a vehicle.

The cited documents represent the general state of the art. The invention defined in claims 1-10 is not disclosed by any of these documents.

The cited prior art does not give any indication that would lead a person skilled in the art to the claimed method and apparatus for collision prevention of a mine vehicle,

.../...

Supplemental Box

Use the space in any of the preceding boxes is not sufficient.
Continuation of: Box V

especially issuing a warning message if a memory point, the memory points representing the stored locations of obstacles on both sides of the vehicle, resides within a sideward safe area.

Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in claims 1-10 is novel and is considered to involve an inventive step. The invention is industrially applicable.